REMARKS

Claims 1-21 are pending in this application.

By this Amendment, independent claims 1, 2, 10 and 12 are amended, and claims 20 and 21 are added to recite additional features disclosed in the specification at, for example, Figs. 1 and 4 and paragraph [0030]. Claims 2 and 12 are also amended for form. No new matter is added. Reconsideration of the application is respectfully requested.

The Office Action rejects claims 2 and 12 under 35 U.S.C. §112, second paragraph. Claims 2 and 12 are amended for form to overcome this rejection. Accordingly, withdrawal of the rejection of claims 2 and 12 under 35 U.S.C. §112, second paragraph is respectfully requested.

The Office Action rejects claims 1-8 and 10-18 under 35 U.S.C. §102(b) over U.S. Patent Publication No. 2002/0003322 to Dull; and rejects claims 9 and 19 under 35 U.S.C. §103(a) over Dull. These rejections are respectfully traversed.

Independent claims 1, 2, 10 and 12 are amended to recite additional features, as outlined above. For example, claim 1 is amended to recite "the furnace further comprising: a heat exchanging unit downstream the first heater and upstream the treatment gas-introducing unit, wherein the treatment gas, after going through the heat exchanging unit, is divided into two parts, including a heat exchange gas that gets circulated back to the furnace body, and an exhaust gas that is output from the furnace without being further circulated back to the furnace body; and a blower provided at the treatment gas-introducing unit, wherein the blower circulates the treatment gas into the furnace body, and circulates the heat exchange gas back into the furnace body." Claims 2, 10 and 12 are amended to recite similar features. Dull does not disclose or render obvious the subject matter recited in claims 1, 2, 10 and 12, as amended.

In particular, Dull discloses using fans located at the release region 12 in Fig. 2. See paragraph [0035] of Dull. Dull does not disclose using a fan at a treatment gas-introducing unit to circulate a heat exchange gas back to the furnace body downstream a separating location after being divided from an exhaust gas. Thus, independent claims 1, 2, 10 and 12 are patentable over Dull. Claims 3-9, 11 and 13-19 are each patentable at least in view of the patentability of claims 1 and 10, from which they respectively depend, as well as for additional features they recite. Accordingly, withdrawal of the rejection of claims 1-19 under 35 U.S.C. §102(b) and §103(a) is respectfully requested.

New claims 20 and 21 are each patentable at least in view of the patentability of claims 1 and 10, from which they respectively depend, as well as for additional features they recite. For example, Dull is directed to a tunnel kiln. See paragraph [0032] of Dull. Dull does not disclose a batch kiln, which is well known to be different from a tunnel kiln. For example, a batch kiln has a simple configuration, while a tunnel kiln requires a division of a plurality of zones in which respective nozzles and gas-transporting tubes are arranged, as well as control of nitrogen concentration in each zone.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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Attachment:

Amendment Transmittal

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